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ABSTRACT

The present invention provides a process for making activated carbon having BET surface area upto 2000 m²/g with pore diameter in the range 17-21 Å suitable for fabricating fuel cell and ultracapacitor electrode from coconut shell by treating carbon granules obtained from coconut shells with chemical activating agents like zinc chloride or potassium hydroxide at the room temperature range 500-800 °C in a dynamic flow of gases like N₂ or CO₂ for 6-24 h followed by a specific cooling pattern to room temperature. Use of such activated carbon enables the fabrication of high performance ultracapacitor electrodes in H₂SO₄ as exemplified by capacitance values like 180 F/g without the use of any normal metal additives such as RuO₂ or IrO₂.

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